



Trabajo fin de máster

TÍTULO: ANXIETY EFFECTS OF USING FACE-TO-FACE VS. SYNCHRONOUS VOICED-BASED CMC

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ABSTRACT

This article reports the findings of a study investigating the use of synchronous computer-mediated communication (henceforth CMC) vs. face-to-face (henceforth FTF) in an EFL context. Anxiety is a phenomenon very likely to occur in foreign language lessons, which can hinder oral performance levels. The main aim of the study was to discern which of the two methods proposed was more effective for anxiety-reduction. 44 first of ESO Spanish EFL students in a public High School participated in the study. The data were collected through a pre-test and two post-tests of a translated version of Horwitz's Foreign Language Classroom Anxiety Scale (FLCAS). The results showed that the anxiety levels of the experimental group decreased even though it was the group with higher initial anxiety levels, whereas the control group anxiety levels increased.

INTRODUCTION

Who has not felt butterflies in the stomach, the slight dizziness before an exam and more specifically before a foreign language exam? I guess that almost everybody, including myself, is aware of the risk that having to use a foreign language poses because of the challenge to our linguistic abilities it entails. That feeling of uneasiness we feel when facing a situation in which we have to use it, is what we term **anxiety**.

Anxiety has been researched in the last years thanks, among other factors, to the new needs that have appeared because of the world's globalization. In current societies, the notion of competence has changed and now it includes the knowledge and usage of, at least, one foreign language. In fact, in the majority of companies English is required as a prerequisite. Moreover, travelling abroad has become easy and knowing English, for example, has become a practical tool for life itself. However, the use of foreign languages usually brings about language anxiety.

Anxiety was first researched, broadly speaking, as a debilitating factor when facing a new situation or activity. Little by little researchers focused on more specific situations in which anxiety could be detected. They named this type of anxiety situation-specific anxiety, and a type of situation-specific anxiety is the aim of this study: language anxiety.

According to some recent research, language anxiety can be reduced thanks to the use of new technologies (Roed, 2013). For example, CMC has proven to be anxiety-reducing in different contexts (Bump, 1990; Beauvois, 1998; Arnold, 2007). Given that anxiety usually prevents you from performing at your best, trying to reduce it is important. In this research I will be testing the levels of anxiety experienced by two

groups of students when speaking in English in both monologues and dialogues. One of the groups will produce language in face-to-face situations and the other will use CMC (through Skype). Previous studies have shown that those in the face-to-face contexts show higher levels of anxiety than those talking through Skype (Satar and Özdener, 2008). Consequently, the aim of my research is to analyze which of those two situations are more anxiety-provoking, face-to-face or CMC using Skype.

If the results of this research confirm that CMC is anxiety-reducing, and considering that research has shown that students experiencing higher levels of anxiety perform worse than those with lower levels of anxiety (Navarro, 2013), classroom situations in which new technologies are introduced, and thus, language anxiety is minimized, should be pursued. This will reduce language anxiety and will probably improve performance levels.

LITERATURE REVIEW

Scovel (1978: 134) defined anxiety in language learning as “a state of apprehension, a vague fear”. Gardner and MacIntyre (1991, p.5) added it is “the apprehension experienced when a situation requires the use of a secondary language with which the individual is not fully proficient”. And, of course, language anxiety was also defined by Horwitz (1991, p.128) as “a distinct complex of self-perceptions, beliefs, feelings and behaviors related to classroom language learning arising from the uniqueness of the language learning process.”

Spilberger (1966) was the first to make a distinction between two different types of anxiety: **trait anxiety**, which is an enduring form of anxiety and is an intrinsic property

of the person, and **state anxiety**, which is a type of temporary anxiety as, for example, the fear experienced by a student before an exam.

Other authors (Alpert & Haber, 1960; Scovel, 1978) classified anxiety into **facilitating anxiety**, which can improve the learning process and the productivity in simple tasks, and **debilitating anxiety**, which worsens the learning process.

The first of these subtypes was researched by Mussen and Rosenzweig (1981), who stated that anxiety, when it is not excessive, can improve the learning process. Their results confirmed that there were some tasks in which slightly anxious children performed better than their non-anxious mates (given the same IQ). The tasks they used involved simple and well-structured items that required people to perform in a very thorough way verifying results constantly. More recently, Spielman and Radnofsky (2001) provided insights into how certain kinds of language anxiety can lead to a positive learning experience; so, it could be argued that anxiety can have a facilitating effect on learners' success in learning a foreign language. Nevertheless, the general trend in research has demonstrated that the higher the anxiety is, the worse the results are, and thus, many authors (Cheng, Horwitz & Schallert, 1999; Krashen, 1982, 1985) uphold that, in general, anxiety is more debilitating than facilitating

The next trend in research about anxiety focused not on the characteristics of anxiety but on the specific situations in which it appeared. This type of anxiety was called **situation-specific anxiety** and was defined as “the worry and negative emotional reaction aroused when learning or using a second language” (MacIntyre, 1998, cited in Zheng, 2008, p.2). This is the type I will be dealing with in this study: anxiety appearing when using a foreign language or language anxiety (MacIntyre & Gardner, 1994).

This type of anxiety is caused by the pessimism experienced by the students and their feelings of inadequacy and failure when they are in situations in which they have to use a foreign language. Moreover, “the learner’s self-consciousness is usually associated with his/her worry about not being able to transmit an image of him/herself that corresponds to his/her true personality” (Ortega Cebreros, 2000, p. 2). The uniqueness of this type of anxiety lies in the dynamism of the language classroom context in which the students are continuously asked to use the language they are learning and that they know imperfectly. This continuous interaction is likely to make students more anxious in foreign language classroom contexts than in any other classroom contexts.

Horwitz’s work (1986) has been one of the most influential in the field of language anxiety. According to Horwitz, language anxiety is provoked by three factors:

1. Communication apprehension (McCroskey, 1977) or fear about real or anticipated communication with other people.
2. Test anxiety or fear of failing a test.
3. Fear of negative evaluation.

Young (1991) also identified six possible sources of foreign language anxiety:

1. Personal and interpersonal issues.
2. Instructor-learner interactions.
3. Classroom procedures.
4. Language testing.
5. Instructor beliefs about language learning.
6. Learner beliefs about language learning.

Some other possible sources of foreign language anxiety were added by Mak (2011):

1. Uncomfortableness when speaking with native speakers.
2. Negative attitudes towards the English class.
3. Speaking in front of the class without preparation.
4. Inadequate wait-time.
5. Not being allowed to use the first language in a second/ foreign language class.

Some authors (Ortega Cebreros, 2000) have noticed that experiences which cause anxiety can be recognized by some physiological signs, such as coldness, alteration in breathing rhythm and increase in the heart rate, which people suffering from it show. It also carries some behavioral indications as squirming, stammering, giving short responses, joking, nervous laughing or avoidance responses. Arnold and Brown (1999) believed that language learning anxiety may be the most pervasive obstruction to the learning process.

Consequently, and as language anxiety tends to be a debilitating anxiety affecting not only students but even teachers in some cases, it is highly important to help learners to cope with it and to teach them some techniques to reduce it.

Some proposals to diminish anxiety have been put forward. For example, Hauck and Hurd (2005) created a check-list as an anti-anxiety action. The check-list included 11 strategies, for example speak positively to oneself, self-reward oneself when a task is correctly done or write in a private notebook, to help learners control their anxiety. Role-plays (RPGs role-plays) can also be considered as anxiety-cutting since they encourage creativity and the practice of the foreign language in an unthreatening environment (Jones, 1982).

Computer Mediated Communication

Computer Mediated Communication (CMC) has been proposed as a way to improve language skills using technological tools. Some of the benefits of using CMC in a classroom are related to collaborative learning and constructivist theories of learning. As highlighted by Satar and Özdener (2008), CMC is a powerful tool in constructivist language learning approaches “because of its capability to support interaction and collaboration among diverse and dispersed students in the form of online discussion” (Wang, 2005, p.303). The past decade has beheld an increasing number of studies on the use of audio and audiographic conferencing in the second language acquisition field. Research on CMC has covered many languages: Spanish (Volle, 2005; Lee 2008), Italian (Tudini 2003), French (Lamy 2004), English, and many issues related to SLA such as type of negotiation of meaning (Bueno-Alastuey, 2013), uptake of negative feedback (Yanguas, 2012) etc.

Some studies found out that the use of computers in the process of foreign language learning decreased the levels of foreign language anxiety as students paid less attention to making mistakes and felt less threatened by silences (Kern 1995; Beauvois 1997). Moreover, “the absence of their instructor and peers in the computer environment helped to reduce anxiety” (Poza, 2005, p.87). This reduction in anxiety levels should be further investigated in other levels and in oral CMC especially because, as Krashen (1998) noted, oral communication is the most anxiety-provoking situation not only for students but also for teachers. He also considered anxiety was debilitating, raised the affective filter and lessened L2 learning ability.

Pair and group work is also said to lower students’ anxiety (Young, 1991), so Compton (2002, p.25) upheld that the “vicious circle” in which some students are immersed,

especially those who are reluctant to speak and with low speaking competence, can be broken if they work cooperatively. Consequently, CMC seems to lower students' anxiety levels since CMC conversations are held in pairs or among little groups, and this decrease in the number of participants together with the anonymity provoked by the computer (Bueno-Alastuey, 2011) can reinforce students' confidence.

Depending on the student's level, CMC can be carried out with native speakers (NS) or with non-native speakers (NNSs). Advance or proficient students may benefit from interacting with NSs. However, low proficiency students may feel overwhelmed by having to face a conversation with a NS, which might increase their anxiety levels. Thus, holding conversations with NNSs might be more advisable for these learners. One of the disadvantages attributed to pairing NNSs was that in conversations among NNSs, errors made by one student could be assimilated by the other. However, some authors have demonstrated that errors are not assimilated and that "speakers who have already acquired a form did not change it as a result of their peers' errors, but they could help to model and correct this form" (Gass and Varonis, 1989, as cited in González Lloret, 2003, p.87) and that pairing NNSs not sharing L1 produces more instances of negotiation of meaning and form than pairing NNSs with NSs (Bueno-Alastuey, 2013).

Taking into account the benefits that CMC may provide to reducing anxiety levels, the purpose of this research is to test the premise that in CMC, the anxiety levels experienced by the students are lower than in FTF situations. My motive to make this study was to try to overcome the high amount of failures in the subject of English in the ESO period. With this research I aim to find out in what situations (CMC or FTF) do the students feel more confident and so, contribute to trying to reduce their anxiety levels, because as I have previously mentioned, there seems to be a close relationship

between anxiety and performances, that's to say, those with lower anxiety levels perform better than those with higher anxiety levels

METHOD

Context

The study was conducted in a Public High School in Tudela (www.iesbenjamin.es) during the second term of the academic year 2013/2014. The sample included a total of 44 participants of 1st of ESO.

It was chosen because of practical reasons such as the availability of these two groups of students during my Practicum II in the center and the fact that they shared some traits, for example, the level of proficiency. Another reason was that as English is one of the most failed subjects in Secondary Education in Spain, I found it interesting to work with students of ESO in my research in order to try to diminish their anxiety levels and check whether something can be done in this aspect. Thus, I could identify the levels of anxiety experienced in High School and make the teachers aware of the results just in case they considered anxiety reduction was important and had the possibility to take extra-measures to lower anxiety levels.

Design

This research was a quasi-experimental cross-sectional study carried out with two intact classes of 1st of ESO. It was built upon the following research question:

- Do students producing oral language show lower levels of anxiety when speaking through Skype than in FTF situations?

Participants

The study had two groups of participants: an experimental group ($N = 22$) and a control group ($N = 22$).

The participants were boys and girls between 12 and 13 and coming from middle-class backgrounds.

The speaking competence of the participants was Novice High as stated by the American Council on the Teaching of Foreign Languages or an A1-A2 as stated by the European Framework. In any case, all the subjects were enrolled in English-Spanish bilingual programs and had two more hours of English Language than the rest of students of the same age and level, so their amount of exposure to the language was 5 hours a week.

Instruments

The research instrument used was a translated version, validated by Ortega Cebreros (2000), of the *Foreign Language Classroom Anxiety Scale* (FLCAS) created by Horwitz et. al (1986). It had 33 five-point Likert Scale and “was aimed at probing students’ experiences of anxiety related to the learning of a foreign language in the classroom context” (Ortega Cebreros, 2000, p. 1). Some of the items were negatively worded in order to serve as a crosscheck.

The FLCAS included five factors influencing the levels of anxiety experienced by the students:

- (1) Speech anxiety and fear of negative evaluation.
- (2) Uncomfortableness when speaking with native speakers.

- (3) Negative attitudes towards the English classroom.
- (4) Negative self-evaluation.
- (5) Fear of failing the class/ consequences of personal failure.

Procedure

First of all, the subjects were given a pre-test (Anxiety Scale Questionnaire 1 – ASQ1) and the only information they received was that they were going to participate in a research project (I was presented as an English teacher doing my Practicum) for my final work in a Master course at the Public University of Pamplona. The participation was compulsory and took place during the English class.

In the pre-test, it was clearly stated that no-one would have access to the results apart from the researcher. In the following days, the first and second speaking interventions took place. The situation took them by surprise and they were very excited about the activity. The speaking interventions were presented as speaking activities to practice what they had been dealing with in class.

The anxiety scale questionnaires (ASQ1, ASQ2 and ASQ3) were administered three times during regular class periods and throughout a five-day interval to 44 students who were at their first year in High School in 2014. The research was conducted at the end of the second term of the course. As to guarantee the reliability of the study, several steps were taken when collecting the data: 1) the tests were administered by the researcher in all cases to provide the students with uniform and non-distracting circumstances; 2) the students were provided with clear and unambiguous instructions in Spanish of what was expected from them and the scale itself was in Spanish to avoid another focus of anxiety, 3) the aim of the study was not straightforwardly presented to the students so that they were not conditioned by the purpose of the research, 4) the students were

assured that the results were going to be completely anonymous and were not going to affect their course mark in any case. In fact, the questionnaires were completely anonymous. After that, they were asked to give honest answers.

Control group

The control group was working in face-to-face situations. In alphabetic order they were arranged in pairs. Then, the subjects faced a dialogue activity¹ for 2'-3'. After the dialogue, each member of the couple did a monologue². Each monologue lasted for 1'-2'.

Finally, after each speaking intervention, the participants filled in one anxiety scale questionnaire (ASQ2 and ASQ3) with the same specifications as the ones given when they had to fill the ASQ1.

Experimental group

The experimental group worked in online situations. The researcher created Skype addresses for the participants to use. As only two laptops were available for the research, only one couple could work at a time.

In alphabetic order they were arranged in pairs. Then, the subjects did a dialogue activity through Skype for 2'-3'. After the dialogue, the two subjects did the monologue at the same time in the computer they were using, with the program Audacity. Each monologue lasted for 1'-2'.

¹ For the dialogues the participants of both groups were handed some photocopies with three options with different situations to talk about and helping questions for them to use just in case they needed them.

² For the monologues the participants of both groups were handed some photocopies with three options with different advertisements to talk about and helping questions for them to use just in case they needed them.

Finally, as in the experimental group, after each speaking intervention the participants filled in the anxiety scale questionnaire.

TABLE 1³. Procedure followed

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
Control group	Pre-test (anxiety scale questionnaire 1 – ASQ1)	Speaking intervention 1 + anxiety scale questionnaire 2 (ASQ2)	Speaking intervention 1 + anxiety scale questionnaire 2 (ASQ2)	Speaking intervention 2 + anxiety scale questionnaire 3 (ASQ3)	Speaking intervention 2 + anxiety scale questionnaire 3 (ASQ3)
Experimental group	Pre-test (anxiety scale questionnaire 1 – ASQ1)	Speaking intervention 1 + anxiety scale questionnaire 2 (ASQ2)	Speaking intervention 1 + anxiety scale questionnaire 2 (ASQ2)	Speaking intervention 2 + anxiety scale questionnaire 3 (ASQ3)	Speaking intervention 2 + anxiety scale questionnaire 3 (ASQ3)

Data

Data were gathered in five different days. The data were quantitative as the aim of my study was to measure the levels of anxiety experienced by the students throughout the research and to compare the different levels of anxiety in the experimental and the control groups.

Data analysis

Data were collected using as a research instrument an anxiety scale questionnaire, Horwitz's FLCAS (1986), translated into Spanish. The FLCAS is a highly reliable instrument to work with as it has been satisfactorily validated in similar studies related to language anxiety and language learning (Horwitz et al., 1986; Franca Plastina, 2005-6; Ortega Ceballos, 2000).

³ As there were 22 students per class and the classes lasted over 50-55', the two speaking interventions took two days each (days = class hours).

Once all the data were gathered, the points scored were counted and added. 5 points were awarded to “Strongly agree”, 4 to “Agree”, 3 to “Neither agree nor disagree”, 2 to “Disagree” and finally, 1 to “Strongly disagree”⁴. All negatively worded items, as for example “I don't worry about making mistakes in language class”⁵, were reversed and recoded to ensure that a high score represented a high anxiety level in the English class. The results were grouped, first, taking into account the group in which they had been collected and, secondly, considering whether they were from ASQ1, ASQ2 or ASQ3.

After all the points had been added, they were divided by 33, which was the number of statements each questionnaire included. The number resulting from this division was a score over 5 and indicated the anxiety level, based on a five-point Likert Scale, of the subject who had done that anxiety scale questionnaire.

Anxiety was measured according to the value obtained in the questionnaire. Values ranging from 0 to 2.2 were considered as **low anxiety levels**. Results ranging from 2.2 to 2.8 (both included) were considered as **normal anxiety levels**. Values from 2.8 to 3.5 were considered as **high anxiety levels** and, finally, all the results between 3.5 and 5 (both included) were considered as **disturbingly high anxiety levels**.

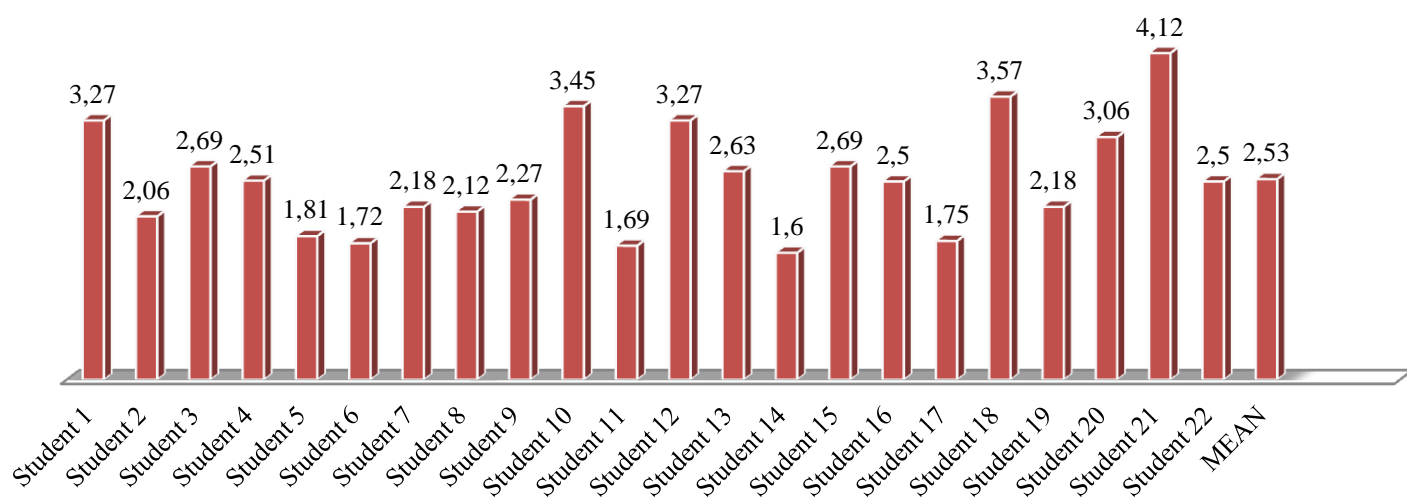
⁴ The terminology used in the FLCAS translated into Spanish for the research was: “Estoy muy de acuerdo”, “Estoy de acuerdo”, “No estoy de acuerdo ni en desacuerdo”, “Estoy en desacuerdo” and “Estoy muy en desacuerdo”, respectively.

⁵ The terminology used in the FLCAS translated into Spanish for the research was: “No me preocupa el cometer errores en la clase de Inglés”.

RESULTS

Pre-test (ASQ1)

**Figure 1 - Results pre-test (ASQ1)
control group**

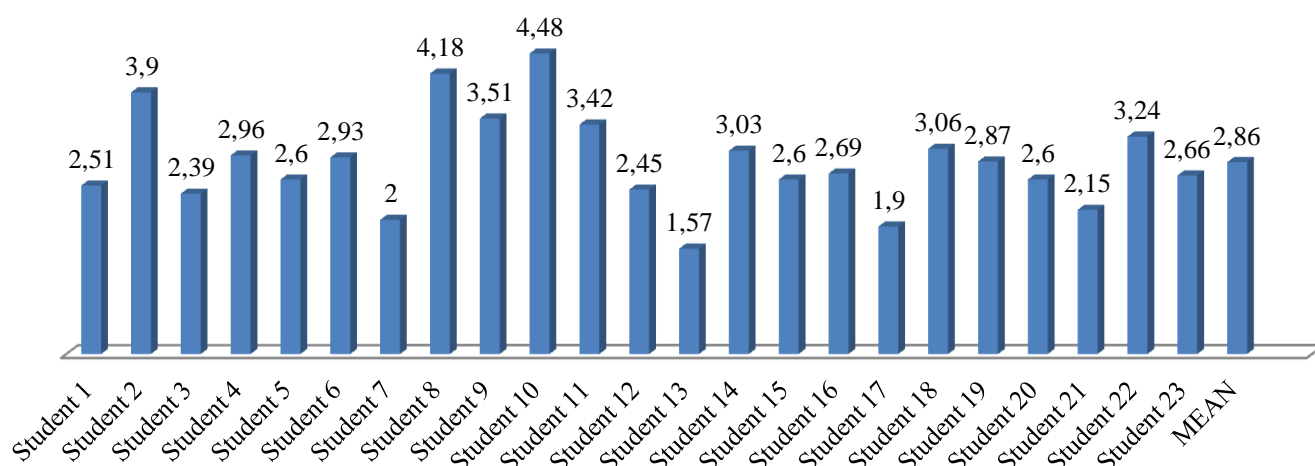


As can be seen in Fig.1, the average level of anxiety in the pre-test (ASQ1) was 2.53, which is a medium level of anxiety considering 5 as the highest level possible.

The levels of anxiety were quite varied, ranging from 1.6, the lowest, to 4.12. This difference of 2.52 indicated that there was a person with a very low level of anxiety when facing oral production in English, and another with serious difficulties in controlling his/her anxiety in the same situations.

Regarding the number of students with a specific anxiety level, 9 students had low anxiety levels, 7 normal, 4 high and 2 disturbingly high anxiety levels. So, according to these results, the majority of subjects in the control group showed low and normal anxiety levels.

**Figure 2 - Results pre-test (ASQ1)
experimental group**



As it can be seen in Fig. 2, the levels of anxiety in the experimental group were also quite varied. The average level was 2.86, higher than in the control group (2.53), so we could state that the experimental group showed higher levels of anxiety when faced with oral production than the control group. Even though the difference between both means was 0.33, which could be considered as low, this difference meant that while the control group remained within normal anxiety levels, the experimental group raised to the category of high anxiety.

In this case, the lowest score in the group was 1.57, whereas the highest was 4.48. As in the previous group, the difference was quite noticeable (2.91) and it also meant there was a person who suffered from serious anxiety episodes when producing oral language and a person with a relatively low anxiety level.

Regarding the number of students with a specific anxiety level, 4 students showed low anxiety levels, 8 normal, 7 high and 4 disturbingly high anxiety levels.

Comparing both groups' levels of anxiety, both the number of people with anxiety levels over 3.5 (disturbingly high) and from 2.8 to 3.5 (high) was lower in the control

group than in the experimental group (2 vs. 4, and 6 vs 11 respectively). Consequently, the number of people with normal or low anxiety levels was higher in the control group (7 vs 8, 9 vs 4), and especially relevant was the difference in the number of students who showed low anxiety levels in the control group (9 vs 4).

As our results showed, at the beginning of this project the anxiety level in the control group was lower both in the mean and in the specific number of students who had high or disturbingly high anxiety levels when faced with speaking.

Test 1 (ASQ2)

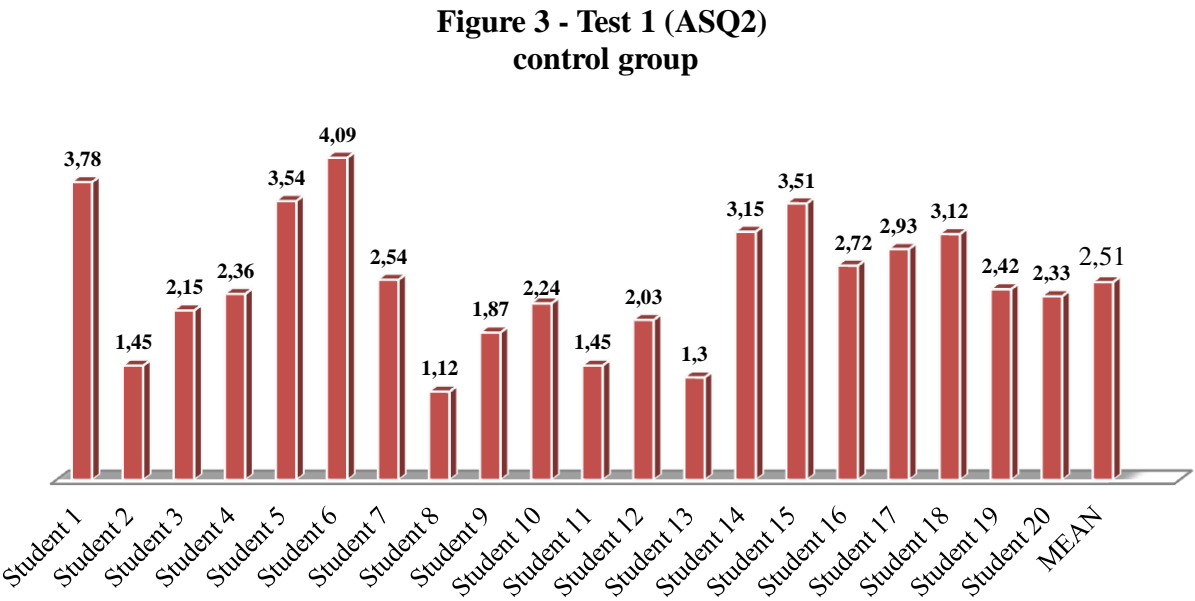


Fig.3 gathers the results scored by the students in the control group after the first oral intervention, Test 1 (ASQ2), took place.

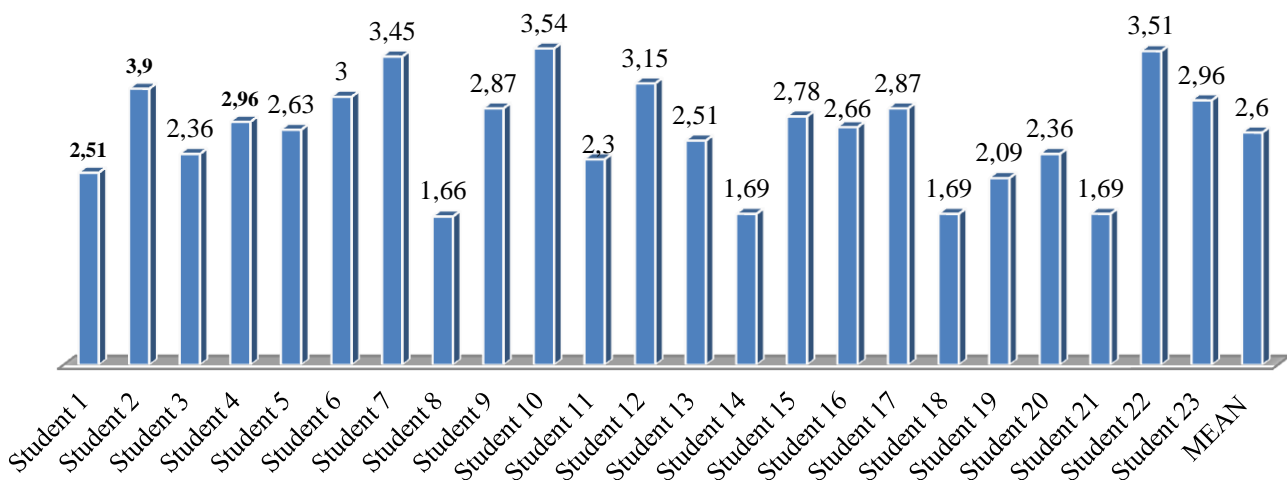
The average result was 2.51, slightly lower than in the pre-test (2.53). Anyway, both means belonged to the normal anxiety range, although there was a slight decrease of the anxiety levels after the intervention had taken place.

As it is shown in Fig. 3, both the highest and the lowest anxiety level shown by this group decreased after the test. The lowest anxiety level shown by a student decreased from 1.6 in the pre-test (ASQ1) to 1.12 in Test 1 (ASQ2). The highest was also a bit lower in Test 1 (ASQ2), it decreased from 4.12 to 4.09. Despite this decrease, the gap between the highest and the lowest score increased (2.97 vs 2.52).

Regarding the number of students with each specific anxiety level, 7 students showed low anxiety levels, 6 normal, 3 high and 4 disturbingly high anxiety levels. As in the pre-test (ASQ1), the majority of results were between the ranges considered as low or normal anxiety levels.

The difference in the number of people in the range “High anxiety levels” and “Disturbingly high anxiety levels” in both questionnaires was very small, 6 people in the pre-test (ASQ1) and 7 in Test 1 (ASQ2). The difference in the number of people between the ranges of “normal” and “low” was quite slight as well: 16 students in ASQ1 vs. 13 students in ASQ2.

**Figure 4 - Test 1 (ASQ2)
experimental group**



Regarding the results of the experimental group (see Fig. 4), the mean was 2.6, in the range of normal anxiety levels. It decreased from a 2.86 (in the range of high anxiety levels) to a 2.6 (normal anxiety levels). This decrease in anxiety levels was quite higher than the decrease experienced by the control group and could be attributed to the use of CMC in this group.

The lowest score in Test 1 (ASQ2) was 1.66 (low anxiety level), while the highest was 3.9 (disturbingly high anxiety levels). The difference between both scores was 2.24, lower than it had been in the pre-test (ASQ1) (2.91).

Regarding the number of students with a specific anxiety level, 6 students showed low anxiety levels, 8 normal, 7 high and 2 disturbingly high anxiety levels. The majority of results scored by the experimental group were located in the low and normal anxiety levels, as they had been in the ASQ1 of the same group.

The number of people in the range of “disturbingly high” and “high” anxiety levels decreased to 9 in Test 1 (ASQ2), while in the pre-test (ASQ1) there had been 11 people in those ranges. These data showed that the use of new technologies inside the classroom had lessened the anxiety levels shown by some students.

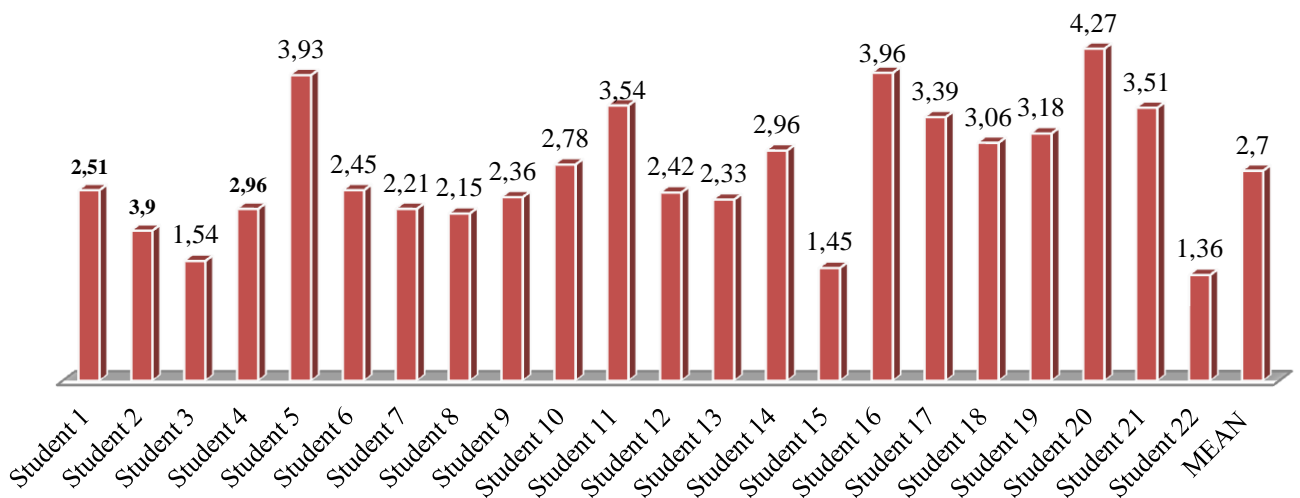
To sum up (see Table 2), after Test 1 (ASQ2) was passed, both groups exhibited a decrease in their anxiety levels. The decrease experienced by the experimental group was higher (0.26) than the one of the control group (0.02). Taking into account this difference, it could be said that the method used by the experimental group, CMC, was more anxiety reducing than the one used by the control group, FTF communication. According to the data gathered in Test 1 (ASQ2), CMC seems to be a good method to reduce the anxiety levels when facing oral production in a foreign language.

TABLE 2. Mean of pre-test and Test 1

	Mean ASQ 1	Mean ASQ2
Control group	2,53	2,51
Experimental group	2,86	2,60

Test 2 (ASQ3)

Figure 5 - Test 2 (ASQ3)
control group



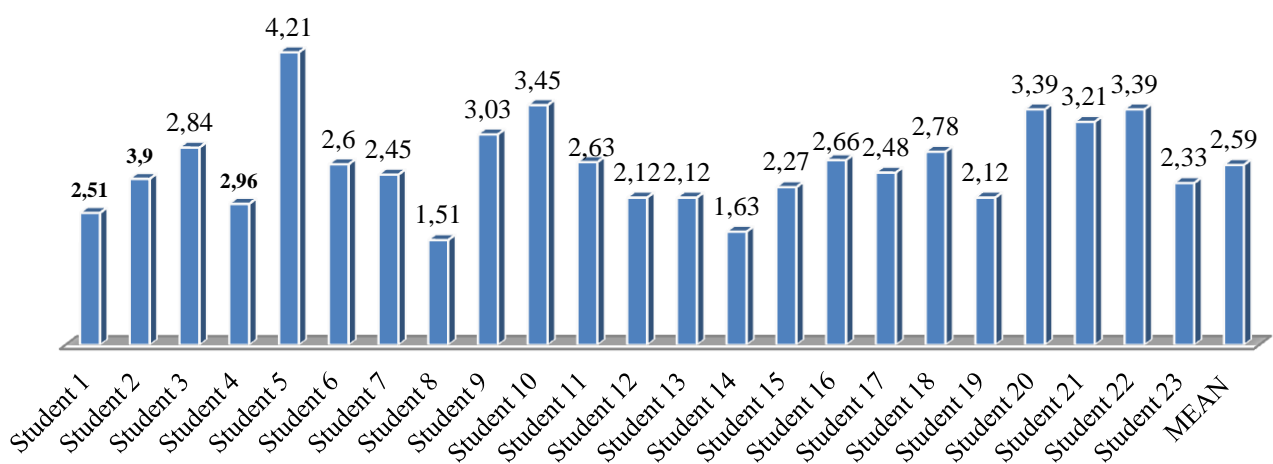
Regarding the results of the control group in Test 2 (ASQ3), the mean was 2.70. Consequently, after a decrease in Test 1 (ASQ2) with respect to the pre-test (ASQ1), anxiety levels experimented an increase of 0.19 points in Test 2 (ASQ3). The reason for this rise was quite confusing, as the environment in which the oral production took place was the same and the topics about which they had to talk were also similar in difficulty. Anyway, the mean obtained by the control group in Test 2 (ASQ3) remained between the limits of normal anxiety.

The lowest score in Test 2 (ASQ3) was 1.36 and the highest 4.27 (the highest anxiety level shown in the control group throughout the study). The difference between them was 2.91. This difference was similar to the one in Test 1 (ASQ2) (2.97). This indicated that, possibly, those people with higher anxiety levels continued showing high anxiety levels.

Regarding the number of students with a specific anxiety level, 5 students showed low anxiety levels, 8 normal, 4 high and 5 disturbingly high anxiety levels. The majority scored in the ranges considered as low and normal anxiety levels, although it was striking the quantity of people (5) showing disturbingly high anxiety levels.

Comparing the results of the control group throughout the research, the general trend was a normal anxiety level tendency, with a decrease of the mean in Test 1 and an increase in Test 2. Both the decrease and the increase were quite modest and signal the fact that levels of anxiety remained quite stable when students communicated in FTF situations. Given the fact that in our research the majority of the conditions remained the same throughout the research, the slight variation could be attributed to factors such as, for example, the change of topic from Test 1 to Test 2.

**Figure 6 - Test 2 (ASQ3)
experimental group**



In the experimental group, the mean level of anxiety in Test 2 was 2.59, a score within the normal anxiety level parameters. Anxiety decreased constantly throughout the three tests: from 2.86 to 2.60, to 2.59. The final anxiety level was lower than the final anxiety level of the control group, although initially the mean had been higher in this group.

The lowest anxiety level was 1.51 (the lowest throughout the study in this group) and the highest 4.21. The difference was 2.7 points, a little higher than it had been in Test 1 (2.24).

Regarding the number of students with a specific anxiety level, 7 students showed low anxiety levels, 9 normal, 6 high and 1 disturbingly high anxiety levels.

To sum up (see Table 3), the mean in the control group raised 0.19 from Test 1 to Test 2, so, anxiety was not reduced by practicing more in FTF communication. On the other hand, the mean in the experimental group decreased, even though slightly (0.01). This showed that CMC seemed to be an effective method of reducing anxiety levels and maintaining such reduction. Consequently, we must conclude that the best method to reduce anxiety levels has proven to be CMC, as the group working with CMC exhibited a reduction of the anxiety levels throughout the study. On the other hand, FTF did not seem to reduce anxiety levels in all situations as the change of topic apparently did not affect the experimental group working in the CMC condition but increased the anxiety levels of the control group working in FTF. In the first intervention (Test 1 - ASQ2) they had to deal with ads, something they had been recently seeing with their teacher in English class, while in the second intervention (Test 2 - ASQ3) they had to deal with: eating routines, lonely old people and make out a story by means of some bullets. They may not be as familiarized with the second speaking options as with the first ones and that can be one of the reasons for the increase in the anxiety levels.

Further research studying the influence of different topics in the anxiety levels shown by students when speaking in FTF and CMC situations should be carried out to analyze whether this is a factor which should be considered.

TABLE 3. Mean pre-test, Test 1 and Test 2 in both groups

	Mean ASQ 1	Mean ASQ2	Mean ASQ3
Control group	2,53	2,51	2,70
Experimental group	2,86	2,60	2,59

CONCLUSIONS

This study sought to investigate whether there were any significant differences in the anxiety levels of the subjects interacting orally in FTF vs. CMC situations. It has been widely assumed that computer-mediated communication could be an ideal medium for improving communication skills during L2 learning, specifically when used to reduce the negative effects attributed to anxiety (Kern, 1995).

As shown in Fig. 1 and 3, in the control group there was a slight decrease of the anxiety levels in ASQ2 with respect to ASQ1. On contrast, in ASQ3 an increase of 0.19 was recorded (with respect to ASQ2). This increase of the anxiety levels could be due to the change of topic as the methodology followed was the same in both oral interventions except for the change of topic.

On the other hand, the experimental group recorded a continuous decrease of the anxiety levels throughout the study. In the ASQ1, the mean obtained was in the range

considered as high anxiety level, which decreased to a normal anxiety level after the first oral intervention (ASQ2). After the second oral intervention (ASQ3), the mean decreased even more, to 2.51. Even though, the experimental group scored higher anxiety levels than the control group in ASQ1, at the end of the study (ASQ3), they showed lower anxiety levels.

So, the fact that CMC seems to be anxiety-reducing has been confirmed by our findings, supporting previous research on the topic (Bump, 1990; Beauvois, 1998); Arnold, 2007).

Taking into account the previous findings and the ones of this research, some money should be invested in teacher training. In this study the tools used were Skype and Audacity. A course in how to use these tools, for example, would be advisable if there is any intention of introducing them in the English class. Moreover, the students should have access to one computer or tablet when CMC is going to take place. Sometimes, the center has a limited number of computers and not enough for all the students. This should be taken into account before deciding to introduce CMC in the class. Finally, a written permission from the parents to use these tools should be asked as the students need to use internet access. When the student are 18, they could use/ create their own Skype addresses but in the meantime, teachers should provide an already-created account for them to use.

LIMITATIONS AND FURTHER RESEARCH

This study is not without limitations. The first limitation is that the data were gathered during my Practicum II, and I could not devote all the time I would have wanted to this task.

Additionally, the investigation focused exclusively on A1-A2 level students enrolled in a bilingual English-Spanish program. As Rahimi and Yadollahi (2011) have noticed, computer-mediated learning has different potential effects and benefits on the learning process depending on the subjects' proficiency. Thus, the results of this study should be tested with other proficiency levels and in other programs.

Moreover, the comfort experienced by the students may have been neutralized if the study could have been carried out in a separate classroom from the ordinary one. The data was gathered during ordinary class time, so, the students doing the oral intervention may have felt embarrassed at some point of the intervention when their peers were in silence.

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REFERENCES

- Alpert, R., & Haber, R. N. (1960). Anxiety in academic achievement situations. *Journal of Abnormal and Social Psychology*, 61(2), 207-215.
- Arnold, J., Brown, H. D., (1999). *A map of the terrain*. In Arnold, J. (Ed.), *Affect in Language Learning*. Cambridge University Press, Cambridge, 1-24.
- Arnold, J. (2007). Reducing foreign language communication apprehension with computer-mediated communication: A preliminary study. *System*, 35(4), 469-486.
- Beauvois, M. H. (1997). Computer-mediated communication (CMC): Technology for improving speaking and writing. In M. Bush & R. Terry (Eds.), *Technology-enhanced language learning* (165-184). Lincolnwood, IL: National Textbook Company.
- Beauvois, M. H. (1998). Conversations in slow motion: Computer-mediated communication in the foreign language classroom. *Canadian Modern Language Reviews*, 54, 198-217.
- Bueno Alastuey, M. C. (2011). Perceived benefits and drawbacks of synchronous voice-based computer-mediated communication in the foreign language classroom. *Computer Assisted Language Learning*, 24(5), 419-432.
- Bueno-Alastuey, M. C. (2013). The relative importance of phonetic errors in voice chats exchanges. *System* 41(3), 543-559
- Bump, J. (1990). Radical changes in class discussion using networked computers. *Computers and the Humanities*, 24(1-2), 49-65.
- Cheng, Y., Horwitz, E., & Schallert, D. (1999). Language anxiety: Differentiating writing and speaking components. *Language Learning*, 49(3), 417-446.
- Coburn, J. (2010). Teaching Oral English Online – Through Skype (VOIP). *Acta Didactica Norge* 4(1) Art. 1.
- Compton, L. (2002). *From chatting to confidence: A case study of the impact of online chatting on international teaching assistants' willingness to communicate, confidence level and fluency in oral communication*. Unpublished MA thesis, Department of English, Iowa State University, Ames.
- Plastina, A. F. (2005). Situational anxiety in L2 instruction: A case study on learner virtual behaviour. *ELIA–Estudios de Linguística Inglesa Aplicada*, 6, 115-133.
- Gardner, R. C., & MacIntyre, P. D. (1991). An instrumental motivation in language study: Who says it isn't effective? *Studies in Second Language Acquisition*, 13(1), 57-72.

- González-Lloret, M. (2003). Designing task-based CALL to promote interaction: En Busca De Esmeraldas. *Language Learning and Technology*, 7 (1), 86-104.
- Hauck, M., & Hurd, S. (2005). Exploring the link between language anxiety and learner self-management in open language learning contexts, *European Journal Open, Distance E-learning*, 2.
- Horwitz, E. K., Horwitz, B., & Cope, J. (1986). Foreign language classroom anxiety. *Modern Language Journal*, 70(2), 125-132.
- Horwitz, E. K. (1986). Preliminary evidence for the reliability and validity of a foreign language anxiety scale. *TESOL Quarterly*, 20(3), 559-562.
- Horwitz, E. K., & Young, D. J. (Eds.). (1991). *Language anxiety: From theory and research to classroom implications*. Upper Saddle River, NJ: Prentice Hall.
- Jones, K. (1982). *Simulations in language teaching*. Cambridge: Cambridge University Press.
- Kern, R. (1995). Restructuring classroom interaction with networked computers: Effects on quantity and characteristics of language production. *Modern Language Journal*, 79(4), 457- 476.
- Krashen, S. (1982). *Principles and practice in second language acquisition*. New York, NY: Pergamon.
- Krashen, S. (1985). *The input hypothesis: Issues and implications*. New York, NY: Longman.
- Krashen, S. (1998). Comprehensible output? *System*, 26, 175-182
- Lamy, M-N. (2004). Oral Conversation online. Redefining oral competence in synchronous environments. *ReCALL*, 16(2), 520-538.
- Lee, L. (2004). Learners' perspectives on networked collaborative interaction with native speakers of Spanish in the U.S. *Language Learning and Technology*, 8(1), 83-100.
- MacIntyre, P. D., & Gardner, R. (1994). The subtle effects of induced anxiety on cognitive processing in the second language. *Language Learning*, 44(2), 283-305.
- Mak, B. (2011). An exploration of speaking-in-class anxiety with Chinese ESL learners. *System*, 39 (2011) 202-214.
- McCroskey, J. C. (1977) "Oral Communication Apprehension: A Summary of Recent Theory and Research". *Human Communication Research* 4, 78-96
- Mussen, P. H. & Rosenzweig, M. R. (1981) *Psychology: an introduction*. Lexington Mass.

Navarro, G. I. (2013). Interaction and anxiety in a task-based computer-mediated communication (CMC) context. Retrieved from SDSU Library & Information Access (<http://hdl.handle.net/10211.10/3941>)

Ortega Cebreros, A. M. (2000) *Factores sociopsicológicos implicados en el contexto de interacción hablada entre el alumno y el Auxiliar de Conversación en Lengua Extranjera*. Tesis doctoral en microficha. Granada: Servicio de Publicaciones de la Universidad.

Poza, M. I. C. (2005). *The effects of asynchronous computer voice conferencing on learners' anxiety when speaking a foreign language*. Unpublished doctoral dissertation, West Virginia University, Morgantown.

Rahimi, M., & Yadollahi, S. (2011). Foreign language learning attitude as a predictor of attitude towards computer-assisted second language learning. *Procedia Computer Science*, 3, 167-174.

Roed, J. (2003). Language learner behaviour in a virtual environment. *Computer Assisted Language Learning*, 16(2-3), 155-172.

Satar, H., & Özdener, N. (2008). The effects of synchronous CMC on speaking proficiency and anxiety: Text versus voice chat. *The Modern Language Journal*, 92(4), 595-613.

Scovel, T. (1978). The effect of affect on foreign language learning: A review of the anxiety research. *Language Learning*, 28(1), 129-142.

Spilberger, C. D. (1966). Theory and research on anxiety. In C. D. Spilberger (Ed.). *Anxiety and behavior*. New York: Academic Press, 3-20.

Spielman, G., & Radnofsky, M. (2001). Learning language under tension: New directions from a qualitative study. *Modern Language Journal*, 85(2), 259-278.

Tudini, V. (2003). Using native speakers in chat. *Language Learning & Technology*, 7(3), 141-159.

Volle, L. M. (2005). Analyzing oral skills in voice email and online interviews. *Language Learning and Technology*, 9(3), 146-163.

Wang, C. H. (2005). Questioning skills facilitate online synchronous discussions. *Journal of Computer Assisted Learning*, 21, 303-313.

Yanguas, I. (2012). Vocabulary acquisition in oral computer-mediated interaction. *CALICO Journal*, 29(3), 501-531.

Young, D. J. (1991). Creating a low-anxiety classroom environment: What does the anxiety research suggest? *Modern Language Journal*, 75(4), 426-439.

Zhang, L. J. & Rahimi M. (2014). EFL learners' anxiety level and their beliefs about corrective feedback in oral communication classes. *System*, 429-439.

ANNEXES

APPENDIX 1

Translated version of Horwitz's FLCAS used in the data collection.

FOREIGN LANGUAGE CLASSROOM ANXIETY SCALE (FLCAS)

Horwitz, Horwitz & Cope 1986

Completa la tabla de acuerdo a tus sentimientos hacia la lengua inglesa y la clase de Inglés. **Lee bien y con cuidado** las siguientes afirmaciones, decide cómo de acuerdo estás y **marca con una X la casilla correspondiente** (solo puedes marcar una casilla por afirmación).

Si tienes alguna duda **pide ayuda** y recuerda que **es un formulario anónimo que no afectará en absoluto a la nota** de la asignatura de Inglés.

	Estoy muy de acuerdo (5)	Estoy de acuerdo (4)	No estoy de acuerdo ni en desacuerdo (3)	Estoy en desacuerdo (2)	Estoy muy en desacuerdo (1)
<i>Nunca me siento muy seguro de mí mismo cuando hablo en clase de Inglés.</i>					
<i>No me preocupa el cometer errores en la clase de Inglés.</i>					
<i>Tiemblo cuando sé que me van a llamar en la clase de Inglés.</i>					
<i>Me da miedo cuando no comprendo lo que está diciendo en Inglés.</i>					
<i>No me importaría en absoluto recibir más clases de Inglés.</i>					
<i>Durante la clase de Inglés, me doy cuenta de que pienso en cosas que no tienen que ver con la clase.</i>					
<i>Continuamente pienso que a mis compañeros se les dan mejor las lenguas extranjeras que a mí.</i>					
<i>Normalmente estoy relajado durante los exámenes de Inglés.</i>					
<i>Me entra pánico cuando tengo que hablar en la clase de Inglés sin haberme preparado antes.</i>					
<i>Me preocupan las consecuencias de suspender la asignatura de Inglés.</i>					

<i>No comprendo por qué razón alguna gente se preocupa tanto por las clases de Inglés.</i>					
<i>En la clase de Inglés puedo ponerme tan nervioso que llegue a olvidar las cosas que sé.</i>					
<i>Me da vergüenza contestar de modo voluntario en la clase de Inglés.</i>					
<i>No me pondría nervioso hablando Inglés con hablantes nativos.</i>					
<i>Me inquieto cuando no comprendo lo que el profesor está corrigiendo.</i>					
<i>Me preocupo por la clase de Inglés incluso si estoy bien preparado para la misma.</i>					
<i>A menudo me apetece no asistir a la clase de lengua extranjera.</i>					
<i>Me siento seguro de mí mismo cuando hablo en la clase de Inglés.</i>					
<i>Me produce temor que la profesora de Inglés esté pendiente de corregir cada error que cometo.</i>					
<i>Se me acelera el corazón cuando mi intervención va a ser solicitada en la clase de Inglés.</i>					
<i>Cuanto más estudio para un examen de Inglés, más me confundo.</i>					
<i>No siento la presión de tener que prepararme muy bien para la clase de Inglés.</i>					
<i>Siempre tengo la sensación de que los demás alumnos hablan Inglés mejor que yo.</i>					
<i>Me preocupa mucho de lo que los demás piensan de mí cuando hablo Inglés enfrente de otros estudiantes.</i>					
<i>La clase de Inglés va tan deprisa que me preocupa quedarme atrás.</i>					
<i>Me siento más tenso y nervioso en la clase de Inglés que en las otras clases.</i>					
<i>Me pongo nervioso y me confundo cuando hablo en clase de Inglés.</i>					
<i>Mientras voy a la clase de Inglés me siento muy seguro y relajado.</i>					

<i>Me pongo nervioso cuando no entiendo cada una de las palabras que dice el profesor.</i>					
<i>Me siento agobiado por el número de reglas que hay que aprender para poder hablar Inglés.</i>					
<i>Temo que los otros alumnos se rían de mí cuando hablo Inglés.</i>					
<i>Probablemente me sentiría cómodo entre hablantes nativos de Inglés.</i>					
<i>Me pongo nervioso cuando la profesora de Inglés me hace preguntas que no he preparado de antemano.</i>					

APPENDIX 2

Photocopy (option 1) handed to the students during the dialogues in both oral interventions.

DIALOGUE 1

STUDENT A

Role: mother

Your son/ daughter want to drink some Coca-cola while having dinner. You are completely against sugary drinks because they spoil the teeth and then your son/ daughter can't sleep.

Try to convince him/ her about not drinking Coca-cola not only that day, but always.



HELP:

- ➔ A can of coke contains 10 spoons of sugar
- ➔ It may injure the nervous system
- ➔ It produces head-aches
- ➔ Alternative drinks: water and milk shakes

DIALOGUE 1

STUDENT B

Role: son /daughter

You love coke and fizzy drinks. Today, a friend of yours has given you a can of Coca-Cola and you want to drink it while having dinner.

You know your mother won't let you drink it but you still try to convince her about letting you drink the coke.



HELP:

- ➔ It is delicious and everybody drinks it
- ➔ Today you have to study until late and it will help you to study all night
- ➔ You've read in a newspaper that it reduces head-aches

APPENDIX 3

Photocopy (option 2) handed to the students during the dialogues in both oral interventions.

DIALOGUE 2

STUDENT A

Role: mother

Your son loves playing football and he is very good at it. The next week he is having an important event in which he will have to show his abilities playing football and that's why he wants a new pair of boots.

Try to persuade him from buying them but cheaper ones.



HELP:

- ➔ They cost 3,000 euros (they are the most expensive boots in the world)
- ➔ They doesn't seem comfortable
- ➔ Your son doesn't have enough pocket money to buy them
- ➔ There are good boots in the street market

DIALOGUE 2

STUDENT B

Role: son /daughter

You love playing football and you are very good at it. Next week you are having an important event in which you will have to show your abilities with the ball. Last week you saw the most beautiful boots you've ever seen and your idol Pierre-Emerick Aubameyang was wearing them.

You know they are quite expensive but you know that you will be the best player if you wear them. Try to convince your mother to buy them.



HELP:

- ➔ You have saved some money: 500 euros (although they cost 3,000 euros)
- ➔ They are the most beautiful and comfortable boots in the world
- ➔ Your idol wears them
- ➔ You will do a good job in the event next week if you wear them

APPENDIX 4

Photocopy (option 3) handed to the students during the dialogues in both oral interventions.

DIALOGUE 3

STUDENT A

Role: best friend 1

Your best friend and you are planning a weekend out. You have very different ideas for the weekend so you need to agree.

Your perfect weekend would be: going to Salou by bus and spending the whole weekend in the beach drinking, eating and going out at night.



HELP:

- ➔ Travelling by bus is cheaper than by train
- ➔ You have been studying very hard the whole year and you just want to relax
- ➔ Salou is a marvelous place in which to meet new people
- ➔ Your uncle has an apartment and you can stay there for a low price

DIALOGUE 3

STUDENT B

Role: best friend 2

Your best friend and you are planning a weekend out. You have very different ideas for the weekend so you need to agree.

Your perfect weekend would be: going to the Pyrenees and spending the whole weekend camping, enjoying the green landscape and hiking.



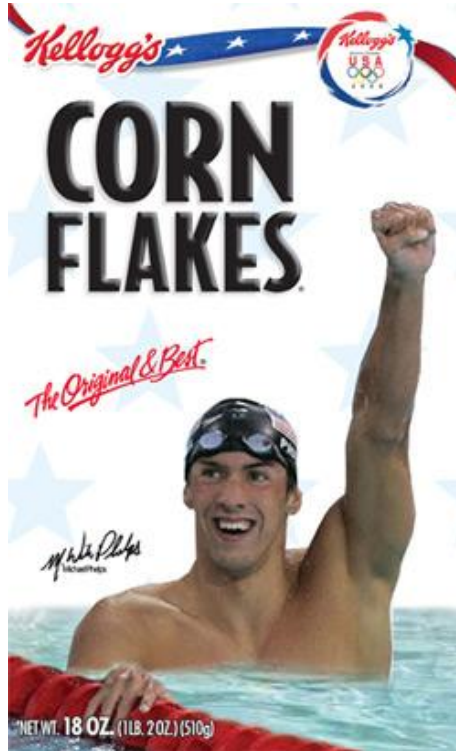
HELP:

- ➔ You want to go by train because it is more comfortable than by bus
- ➔ You love fresh air and hiking so that would be the best way to relax
- ➔ You can meet new people in the mountains
- ➔ You know about a youth hostel very very cheap

APPENDIX 5

Photocopy (option 1) handed to the students during the monologues in the first oral intervention.

OPTION 1: MONOLOGUE



- What is this ad advertising?
- What is the logo? Why do you think they have chosen it?
- Who is the person appearing in the ad? Is he a celebrity or anonymous?
- Why has the company *Kellogg's* used this person in this ad?
- Would you buy the product advertised? Why?

APPENDIX 6

Photocopy (option 2) handed to the students during the monologues in the first oral intervention.

OPTION 2: MONOLOGUE



ULTRA TOUGH FOOTBALLS

- What can you see in this ad?
- What is the logo? Is appropriate or inappropriate?
- What are they trying to sell?
- To whom is this ad aimed at?
- Would you buy the product?

APPENDIX 6

Photocopy (option 3) handed to the students during the monologues in the first oral intervention.

OPTION 3: MONOLOGUE



- Is it a catchy ad? Why?
- To whom is this ad aimed at?
- What are the things that you like and dislike about the ad?
- What is the logo?
- Why is the dog so happy holding a leash?

APPENDIX 7

Photocopy (option 1) handed to the students during the monologues in the second oral intervention.

OPTION 1

Can you compare these two pictures?



APPENDIX 8

Photocopy (option 1) handed to the students during the monologues in the second oral intervention.

OPTION 2

Can you compare these two pictures?



APPENDIX 9

Photocopy (option 3) handed to the students during the monologues in the second oral intervention.

OPTION 3

Make up a story for these cartoons.

